UNSW AUSTRALIA

Sustainability Report

2013

Never Stand Still | Sustainability

Sustainability Report contents

Introduction 4
Approach 5
Highlights during 2013 6

Environment

Energy 8
Waste 12
Water 15
Transport 17
Campus 20
Purchasing 23

Community

Education 26
Equity and diversity 28
Events 30
Research 32
Safety and wellbeing 35
Volunteering 38

Additional information

Global Reporting Index 41
Declarations and charters 46
Prizes 48
Acknowledgements 49

This report was originally published as a website in order to reduce printing and subsequent waste.

Visit the online version of this report at http://sustainabilityreport.unsw.edu.au

Message from Director of UNSW Safety and Sustainability

This has been an outstanding year for UNSW. The many achievements covered in this report would have been impossible without the efforts of our talented students and staff, and to them we extend a warm 'thank you and well done'.

UNSW's achievements in 2013 were in no small measure due to strong leadership and effective governance, with the University Council helping to set clear strategic goals and the Vice Chancellor and Executive Team guiding the implementation of the University's ambitions.

The University has reinforced its leadership position in Australia and globally. The quality of our research was recognised as at or above world standard in the inaugural Excellence in Research for Australia report, which placed UNSW first in NSW and fourth in Australia. We maintained our place among the top 50 universities in the world and received record demand from the state's top 500 HSC students as well as meeting our international enrolment targets.

It's been a particularly strong year for sustainability. Major achievements in 2013 included two world records for efficiency in solar cells and the addition to the campus of the Tyree Energy Technologies Building, our new home for interdisciplinary energy research. This state-of-the-art, 6-Star energy-efficient building was supported by $75 million in funding from the Federal Government and a major philanthropic donation from UNSW alumnus Sir William Tyree.

While the challenges for the university sector in Australia are significant, we have every reason to be optimistic about UNSW's leadership in sustainability and the benefits this will deliver to us and our community. I look forward to sharing our 2014 achievements with you and welcome your response to this report.

Aaron Magner
Director of UNSW Safety and Sustainability

Introduction

Sustainability means a lot of different things to different people, but the oft-quoted definition of sustainability – living successfully in the present without compromising our ability to do so in the future – still holds true.

As one of Australia's leading research and teaching universities, UNSW recognises the vital role the university sector has in driving the change to sustainability as well as the urgency with which this change must take place.

UNSW's first sustainability report documents the sustainability performance of UNSW to date, with a focus on the 2013 reporting period (1 January 2013 to 31 December 2013). This report includes our environmental and social performance, as well as an overview of how the university is tracking in sustainability research and education.

The intention of this report is to provide an annual sustainability snapshot so that we can clearly and transparently give an account of what we have been doing in the last year, what has been improving and where we see opportunities for positive change.

Fast facts

FIRST

UNIVERSITY IN GO8 TO LAUNCH A SUSTAINABILITY REPORT

$33 million
netted in sustainability focused research grants

35
Research centres are focused on sustainability

150
Academics at UNSW declared an interest in sustainability

77
PhD's awarded in the topic areas of water, environment and sustainability

79% of all campus waste is recycled

1,000 trees on the Kensington campus

70% of plants on campus are native

160 megalitres of storm water returned to the Botany Sands aquifer each year

217,016 kWh
of energy generated by the Tyree Energy Technologies Building

45,000 trips
made to and from Kensington campus every weekday

Approach

The aim of this report

This is UNSW's first sustainability report and aims to:

- identify the sustainability issues that impact on the environment and society as a result of UNSW business activities
- describe UNSW's journey towards sustainability, including past achievements, current initiatives and future aspirations
- provide a 2013 sustainability snapshot so we know what we need to improve in the future.

Identifying our reporting needs

UNSW Sustainability is championing UNSW's charge towards sustainability but we understand the vital importance of bringing the whole UNSW community along with us.

Our first step was to explore what sustainability issues were important, so we:

- interviewed key members of senior management and a sample of students
- conducted interviews and focus groups with internal managers and data owners
- undertook staff engagement activities and a VOICE engagement survey
- conducted a student survey.

We collated and analysed this data and produced a register to rank the emerging issues based on the frequency with which they were referred to and the spread of interest in an issue across our different stakeholder groups.

Best practice reporting

In addition to the data collection exercise, we conducted a peer review of sustainability reports from a number of comparable Australian universities and organisations.

In terms of the structure and reporting style, we have been guided by the Global Reporting Initiative (GRI) reporting principles for defining report content.

Our approach is built on the AA1000 Principles and informed by AccountAbility's 5-part materiality test.

Subject matter expertise was also sought from an external climate change and sustainability and communications consultants who provided guidance, advice and assistance.

As UNSW's first sustainability report we have certainly identified room for improvement, but we have also made some great leaps forward in the last few years and this is a good opportunity to celebrate these. However, this report is not about 'greenwashing'. This report is a genuine attempt to record 'where we are now' so we can transparently and clearly demonstrate our improvements over time.

We'd love your help!

If you have any sustainability initiative or research project you want to promote in 2014 or if you think there are any sustainability indicators missing in this report we want to hear from you. Email UNSW Sustainability with your feedback at sustainability@unsw.edu.au.

Highlights during 2013

Renewable energy generation more than trebled in 2013 thanks to the landmark 6 star energy-efficient Tyree Energy Technologies Building which opened in late 2012. The building is also home to state-of-the-art laboratories which support the ongoing research in world record-breaking solar photovoltaic technologies, sustainable clean fuels, smart grids, energy storage, energy economics and policy analysis.

For the last ten years, UNSW has given the NSW Government one clear message – we need a more sustainable, safe and integrated public transport solution. In a big win for University, construction on the South East Light Rail will start toward the end of 2014 and is expected to take about 5 to 6 years to complete. UNSW will have two stops.

UNSW Sustainability held a special Q&A-style panel discussion on food waste for World Environment Day. The panel featured Ronnie Khan, the founder of food rescue charity OzHarvest, along with politicians and UNSW representatives. Around 200 guests attended the event and the lively discussion provided considerable food for thought.

Environmental engineer, climate change activist and feminist, Dr Mehreen Faruqi was elected as a Greens MP and is the first Muslim woman to enter an Australian parliament. The Australian School of Business academic hopes her appointment by the NSW Greens will lead to more diversity in our legislature.

UNSW Sustainability was instrumental in building a new undergraduate and postgraduate gateway to environmental courses and research at UNSW. This site connects visitors with UNSW's environmental, sustainability and clean technology related study options at postgraduate and undergraduate levels.

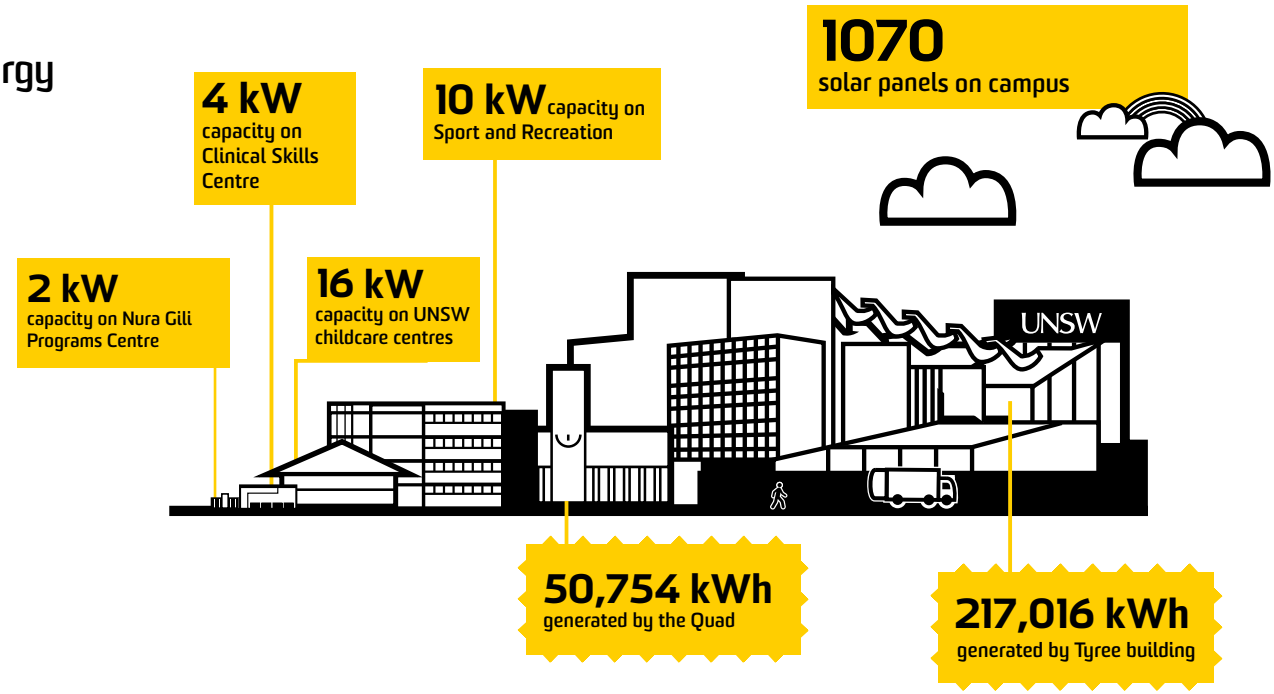
The Kensington Campus is easily accessible by bicycle and provides almost 600 designated bicycle parking spaces. UNSW now has two public bike pumps on campus. In a world designed to suit cars, we consider this a step to make our campus, our city, our world, a little more human friendly.

Environment

With approximately 50,000 students and more than 4,500 staff, the UNSW campuses are equivalent in population to a small town. These campuses consequently have the potential for significant and wide-ranging environmental and ecological impacts. Although every member of the university community has a role to play in improving sustainability, many of the operational impacts are the responsibility of UNSW's Facilities Management unit. This unit manages and maintains all of UNSW's buildings, campuses and research facilities.

In this section

Energy



At UNSW we are constantly finding new ways to conserve energy and we are progressively switching to cleaner energy sources such as solar power.

UNSW has taken a proactive approach to reducing energy consumption through the implementation of various energy saving initiatives. Despite this, total energy use continues to rise because of the increased operation of highly advanced energy-intensive research equipment and a continued growth in student numbers.

Like most organisations in New South Wales, the majority of UNSW's energy requirements are currently met either directly or indirectly through the burning of fossil fuels. The university is committed to finding new ways to meet its energy needs that are both environmentally and economically sustainable and has implemented a number of strategies to reduce the environmental footprint of the energy required by its facilities.

Reducing our reliance on energy sourced from fossil fuels is critical because:

- the burning of fossil fuels releases greenhouse gases that accelerate climate change
- fossil fuels are a finite resource that will run out
- the price of energy generated from fossil fuels in NSW has doubled since 2007 and is expected to double again by 2020.

Total energy use

The NSW power grid supplies the majority of the energy consumed by UNSW with the Kensington campus alone consuming almost 69,000 Gigawatt hours (GWh) of electricity in 2013. Various applications of natural gas based technologies provided most of the balance of energy with renewable sources providing less than 0.5% of the energy consumed during the reporting period.

The source of primary energy consumed by UNSW in 2013 can be broken down as follows:

- 66.3% from grid electricity (mostly from coal-fired power plants)
- 18.3% from natural gas
- 7.3% from co-generation
- 7.8% from tri-generation
- 0.3% from renewable sources such as solar energy

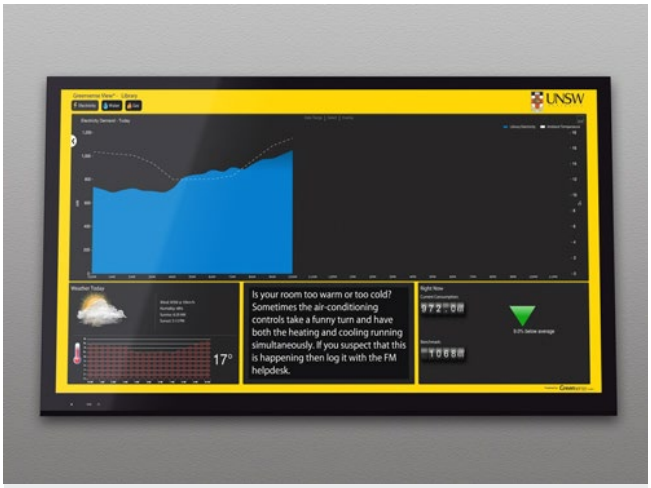
Energy initiatives

Energy Generation - Natural gas

Although natural gas is a fossil fuel, its conversion into energy results in approximately 40% less greenhouse gas emissions than coal-based alternatives. The use of natural gas for space and water heating at UNSW therefore offers significantly better environmental outcomes than grid-based electric alternatives. In 2013, natural gas consumption at the Kensington campus was almost 69,000 gigajoules (or up to 90,000 gigajoules if tri-generation is considered).

Electricity generation – photovoltaic

Since 2005, UNSW has been installing photovoltaic cells on various buildings around its campuses (insert link to infographic). The energy produced by these cells is used to reduce the outside energy demand of the buildings on which they are installed and in 2011 these systems met 0.1% of UNSW's total energy needs. Despite an escalation in the university's total energy demand between 2011 and 2013, the continued expansion of installations meant that in 2013 photovoltaic systems were able to meet 0.3% of the university's demand, producing approximately 270,000 kWh of electricity during the reporting period.



The electricity detectives

System takes energy monitoring to the web

On the back of research that shows the possibility of achieving energy savings of 5-15% when users are provided with direct and live information about consumption, UNSW has devised a new approach to energy monitoring.

UNSW's Energy Management Unit has partnered with Greensense (a real-time sustainability-monitoring platform), to extract the sustainability performance of a building and deliver it in real-time to staff and students. This means users can see how their personal day-to-day actions, like leaving the lights on or opening windows in climate-controlled rooms, directly impacts on the energy demand of their building.

The intention is to not only help foster a more sustainable campus, but significantly reduce the economic costs of consumption.

Electricity generation – co-generation & tri-generation

Co-generation and tri-generation are techniques for energy generation that capture and use the heat energy that results from the production of electricity (and would otherwise have been wasted). Co-generation systems utilise waste heat from the production of electricity to supply hot water to buildings, whilst tri-generation systems capture both the heating and/or cooling potential of the waste energy.

UNSW currently has two co-generation systems and one tri-generation system on campus

In 2012, co-generation and tri-generation were responsible for the production of 39,242 GWh of electricity whilst in 2013 this figure increased to almost 52,000 GWh. This represents a net increase of 75% and means that for the 2013 reporting period almost 7% of UNSW's electricity requirements were met through these technologies.

Energy efficiency - building upgrades

The energy management team at UNSW continually seeks to improve the energy efficiency of the university's facilities through initiatives such as:

- replacing ageing electric hot water systems with solar or gas powered systems
- replacing inefficient lighting systems with energy smart alternatives
- fitting new bathrooms with only cold-water taps.

Energy efficiency - awareness campaigns

The university also runs awareness campaigns about energy efficiency for staff, students and the wider community. These campaigns include:

- encouraging security staff patrolling buildings at night and cleaners to turn off lights
- creating posters such as '7 things you can do'
- promoting Earth Hour via the university's web-services and through social media.

Carbon and other greenhouse gas emissions

The University is required to report its carbon and greenhouse gas emissions to the Commonwealth Government under the National Greenhouse and Energy Reporting (NGER) Act.

The term 'greenhouse gas' refers to any gas that absorbs infrared radiation when released into the atmosphere. The absorption of this energy creates an insulating layer that balances the amount of energy received from the sun with energy radiated away from the earth's surface, creating a stable surface temperature. Different gases are able to absorb different levels of radiation and remain in the atmosphere for different periods of time, making comparisons between them difficult. To enable us to estimate how much a given mass of a greenhouse gas is contributing to global warming, the gas is compared to a baseline of one unit of carbon dioxide (CO_2) and is expressed as a carbon dioxide equivalent (CO_2e). For example, methane has an insulating (global warming) potential 21 times greater than that of carbon dioxide, meaning the emission of one tonne of methane is equivalent to the emission of 21 tonnes of carbon dioxide (21 CO_2e).

The NGER Reporting Guidelines break emissions down into three categories:

Scope 1: These are direct emissions, such as those from the burning of natural gas and motor vehicle fuels.

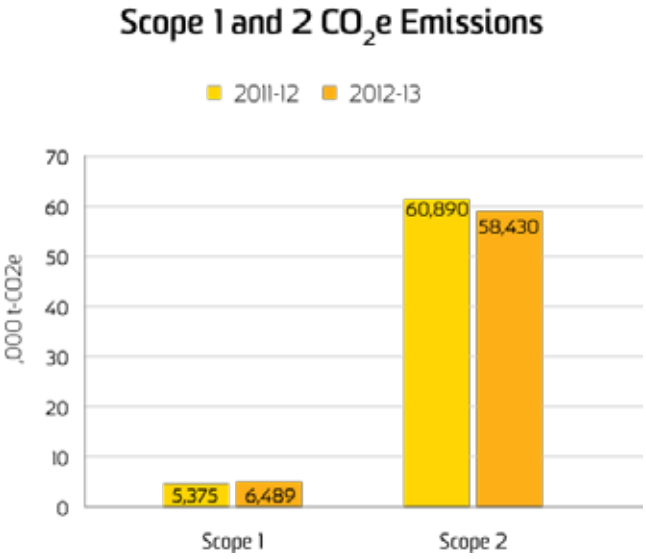
Scope 2: These are indirect emissions, removed by a single step such as those generated as a result of the use of electricity produced by a third-party.

Scope 3: These are emissions that are more than one step removed. This category is most difficult to measure and includes emissions such as those resulting from business

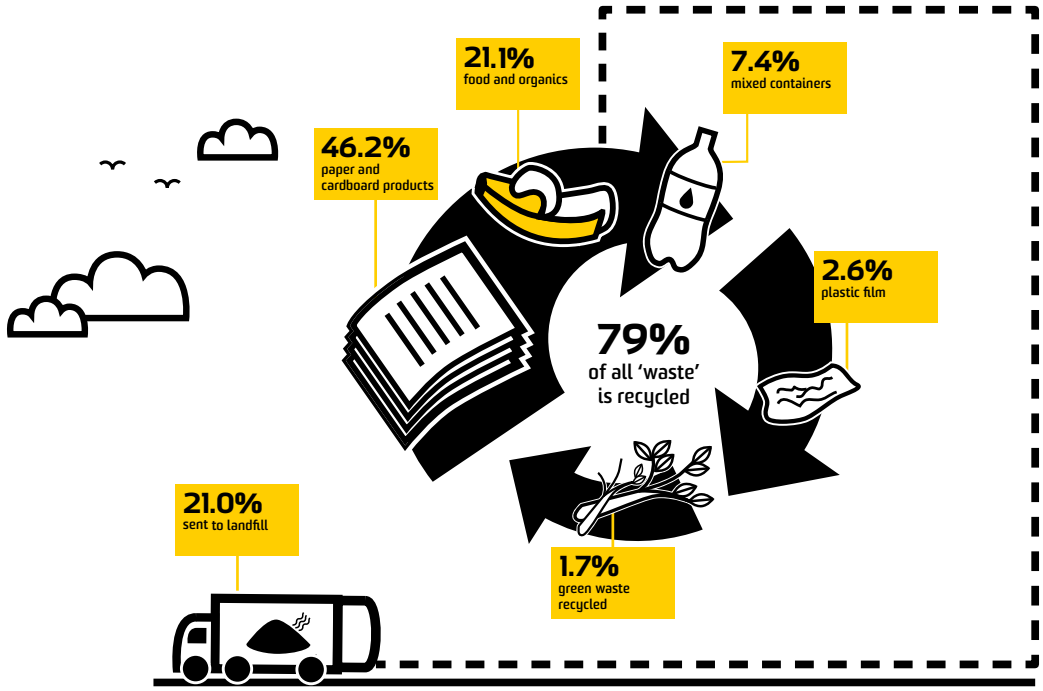
travel by staff, the disposal of waste, the extraction and transmission of energy, and the production of the energy embodied in a resource such as water. UNSW did not measure scope 3 emissions during the 2013 reporting period.

In the 2012-13 financial year, the University's campuses and operations were responsible for the production of 64,919 tonnes of Scope 1 and 2 emissions of CO_2e greenhouse gases, down from 66,265 tonnes in the previous reporting period.

Scope 2 CO_2e greenhouse gas emissions associated with the consumption of NSW grid electricity are the largest contributor to the University's carbon footprint. In 2012/13, these emissions were reduced by 4%. The Scope 1 CO2e greenhouse gas emissions from the burning of natural gas (primarily for heating), and the liquid fuels used by the vehicle fleet rose in 2012/13, but were offset by the scope 2 reduction, resulting in an overall cut of 2%.



Waste



UNSW's waste management initiatives involve reducing, reusing, recycling and composting.

UNSW applies the principles of the internationally recognised Waste Management Hierarchy which states that waste is best managed according to the following priorities:

- **avoidance** including the reduction of waste
- **resource** recovery including reuse and recycling
- **disposal** in an environmentally responsible way.

In common with all organisations, waste management is a considerable challenge for UNSW. With more than 10 different streams of waste generated by a wide variety of activities there are many factors to take into account.

As society's awareness of the environmental problems associated with waste grows, and the cost of waste disposal escalating, the University has proactively implemented a number of successful waste management initiatives in recent years. The most dramatic and positive of these was the execution of a new waste management contract in 2012. Now, instead of going straight to landfill, all waste from campus bins (i.e. paper, plastic, food), is collected, sorted and over three quarters extracted for recycling.

Raising awareness about waste

Waste is not just an institutional responsibility, UNSW Sustainability and Facilities Management are also involved in grassroots waste reduction and recycling campaigns. These are designed to engage the entire University community in contributing to a tangible sustainability goal and include:

- Posters promoting battery and mobile phone recycling
- A public forum on waste and screening of a waste documentary
- A "trip to the tip" tour

- A retail outlets' lease agreement clause concerning the use of recycled packaging
- New water refill points that encourage the re-use of drink bottles.

Paper and cardboard

UNSW has run a successful recycling collection service for paper and cardboard for many years. Students and staff use the blue bins located near printers and photocopiers, and in office corridors throughout the campus. UNSW recovered 1,222 tonnes of used paper and cardboard in the 2013 reporting period which was sent to nearby paper mill and recycled into a range of post-consumer paper products. The University is reimbursed per tonne of paper so this process has strong environmental and economic benefits.

Electronic waste recycling

In 2013 UNSW collected more than 15 tonnes of electronic or e-waste in the 2013 reporting period.

Monitors, laptops, desktops, printers, scanners, projectors, fax machines and servers

This type of e-waste amounted to over 18 tonnes in the 2013 reporting period. UNSW has an agreement in place with the current IT equipment supplier.

Serviceable items such as laptops and desktops that are no longer of any use to UNSW are remanufactured, resold or donated via HP Planet Partners.

Unserviceable items are broken up into their component parts (glass, plastics and metals) and either recycled or sent to landfill as a last resort.

Batteries

When batteries are disposed to landfill they can cause severe environmental contamination of land and waterways. A battery recycling collection service was introduced a

A bottler of an idea

Water fountains for refilling bottles cuts waste.

According to the NSW Department of Environment and Climate Change, the bottled water industry caused the release of 60,000 tonnes of greenhouse gas every year. Plastic bottles are made from crude oil and most are tossed out, rather than being refilled.

Water refill stations and water fountains have been installed around the Kensington campus to reduce the need for students to purchase bottled water. Typically, public bubblers are not designed to enable refilling of bottles and it is difficult to refill water bottles in toilet hand-basins. The installed bubblers feature a tap and spout that have been designed to make it easy for people to refill water bottles.

The water refill posts are vandalism resistant, hygienic, and accessible to wheelchair users and children. They have also been fitted with a water meter that will allow UNSW to estimate the number of plastic water bottles that have been removed from the waste stream in future reports.

number of years ago and is available to all UNSW staff and students. Collection points are located at strategic locations around the campus and during the 2013 reporting period 244kg of batteries were recycled.

Mobile phones

Mobile phones contain both hazardous and valuable materials that need to be recycled and prevented from going to landfill UNSW partners with Fauna and Flora International to provide a phone recycling collection service for staff and students. During the 2013 reporting period, 55kg of mobile phones were recycled. Collection points are located at strategic locations around the campus.

Printer and photocopier toner cartridges

Toner recycling bins are found throughout campus. UNSW partners with Close the Loop and Planet Ark, who collect and recycle cartridges and toner bottles from any brand of printer, photocopier or fax. All material recycled is ultimately returned to manufacturers to be reused in the process of manufacturing new printers and cartridges. During the 2013 reporting period over 2.5 tonnes of toner cartridges were recycled.

Chemical and biological waste management

As one of the top education and research universities in the country, UNSW researchers are involved in activities which use a wide variety of chemical and biological materials. UNSW has contracts with specialist chemical and biological waste management companies who collect and dispose of these materials safely.

Green Lab Program

The UNSW Green Lab Environmental Compliance Program works directly with faculties and schools to ensure relevant staff are informed of their legal responsibilities in regards to environmental compliance. The program offers training for staff and students who use the laboratories and environmental auditing of campus laboratories as necessary.

Food waste

UNSW has two programs in place that deal with food and cooking waste:

Food waste

Food waste bins have been supplied to all campus food outlets and owners have been encouraged to separate their food scraps. These bins are collected and the contents composted.

Cooking oil waste

The waste cooking oil collected from campus is recycled into the process of creating bio-diesel fuel. Over 15,000 litres were collected and recycled in the 2013 reporting period.

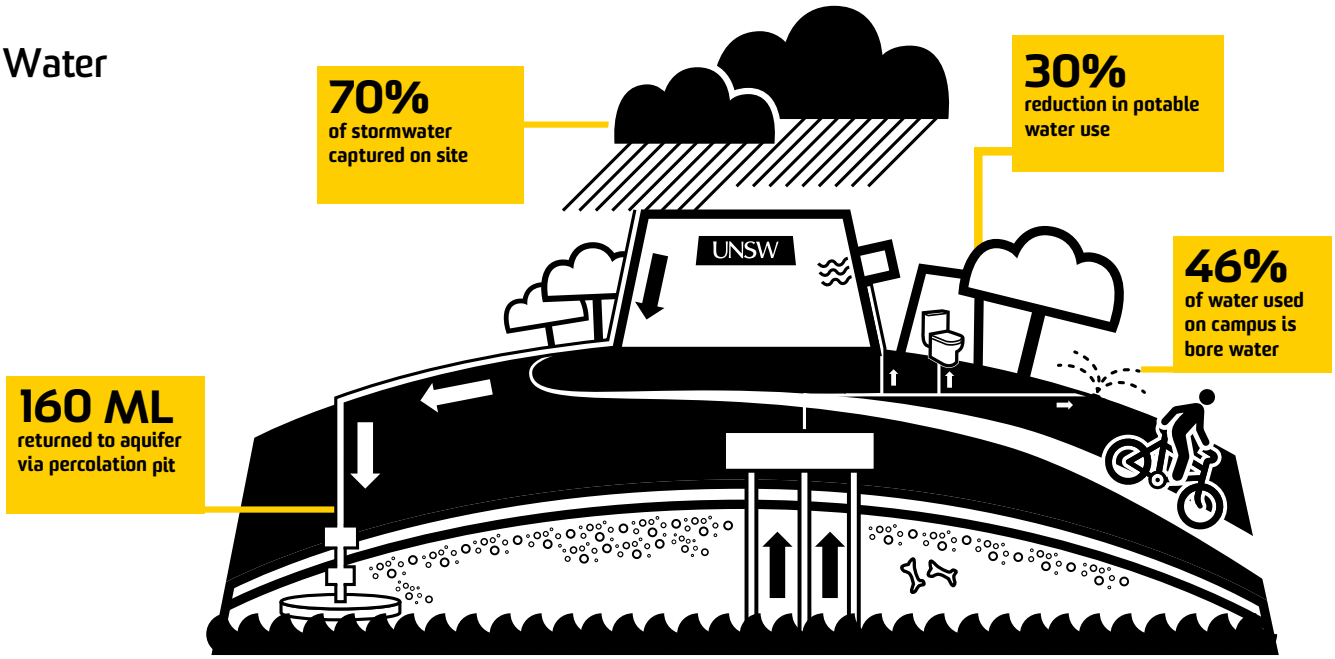
Furniture reuse

Any UNSW staff member or student needing additional furniture for their workplace, or wanting to responsibly dispose of old workplace furniture can create a user account and search for furniture online via the UNSW Furniture Reuse Centre. Over 260 cubic metres of furniture was diverted from landfill in the 2013 reporting period through this program.

General waste

General waste consists of all waste collected from public spaces and offices. It includes mixed plastic containers, paper and cardboard, green waste and food waste. The most dramatic improvement of how this type of waste is managed occurred in 2012 with the execution of a new waste management contract. Instead of all general waste going to landfill, this waste is transported to a specialised waste and recycling facility and carefully sorted. In the 2013 reporting period 79% of this general waste was recycled.

Water



Water conservation is a top priority at UNSW for our current operations and future planning.

The intermittent and uncertain supply of water in Australia has led individuals and organisations to take an active interest in their water usage and the long-term sustainability of water supply. UNSW accepts its ongoing responsibility as an efficient water user and takes water conservation seriously in the planning of future developments on campus.

Where our water comes from

Potable water

Over the past decade, UNSW has instigated a range of water saving initiatives that have seen potable water usage at the Kensington campus decrease in both per capita and real terms. In 2013, the total amount of potable water used on campus was just over 320 megalitres, representing 54% of the water used on campus. This is a 30% reduction from 2004 levels despite the University having 42% more full-time students.

Bore water

Where potable water is not required, UNSW is systematically replacing it with bore water. In addition to irrigation and toilet flushing, the applications of bore water have been extended to include laboratory process cooling, and heat dissipation in air-conditioning systems. In 2013 UNSW used just under 270 megalitres of bore water, representing 46% of total water use, and an increase of 20% since 2003.

Stormwater

UNSW uses a managed aquifer recharge process to mitigate the effects of the extraction of bore water from the Botany aquifer. Managed aquifer recharge is a significant area of research at UNSW, through the UNSW's Connected

Saving water, keeping fit

Water and energy saving initiatives reduce environmental impact of the UNSW Fitness and Aquatic Centre.

Water and energy efficiency is taken seriously by the UNSW Fitness and Aquatic Centre. As a proud recipient of funding from the Department of Environment and Climate Change, UNSW has been able to implement a considerable number of energy and water saving initiatives that have greatly reduced the centre's environmental impact.

The centre has a solar pool heater installed on the roof and solar power is also used to heat water for showers via a solar-boosted gas hot water system. The roof also houses an array of photovoltaic panels that convert sunlight into electricity. This electricity is used by the centre and lowers the carbon footprint.

Other water and energy saving strategies include timer flow-controlled showers, sensor taps, waterless urinals, a thermal pool sand filter cover and a UV water treatment system. Educational story boards, interactive touch screens and informative 'how to use' signs engage and build sustainability awareness among patrons.

The project is expected to save up to seven megalitres of potable water and 200 tonnes of greenhouse gas emissions every year.

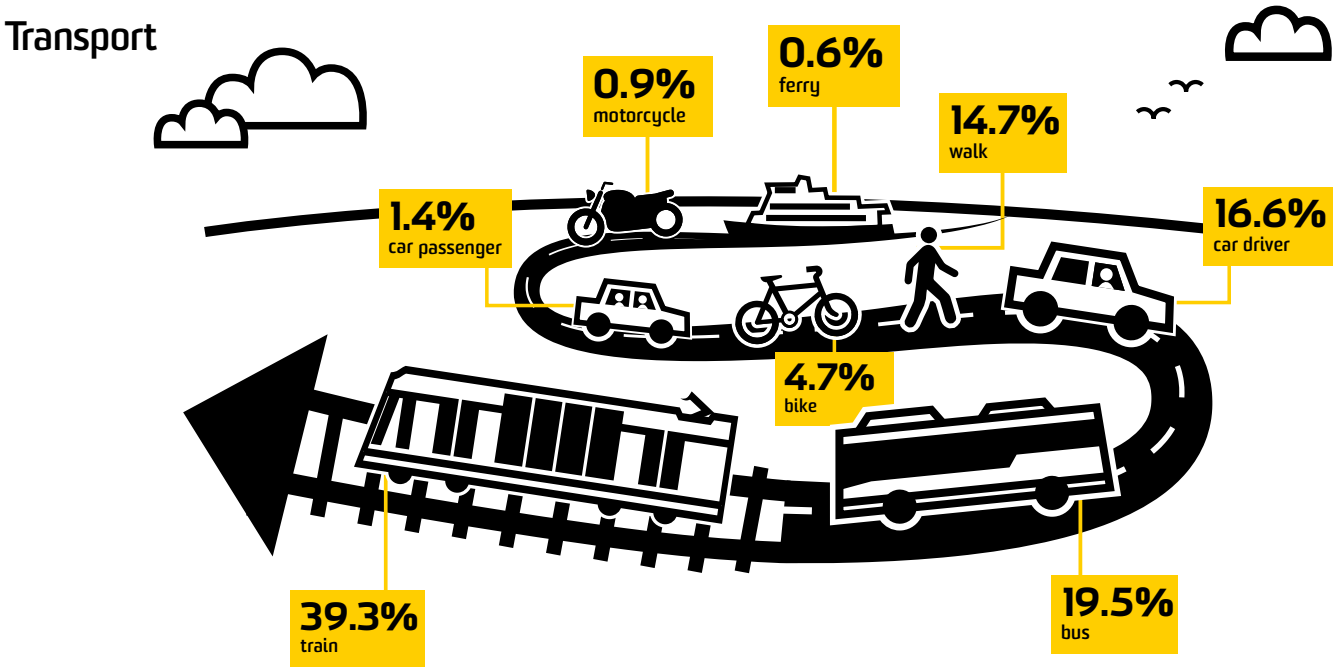
Waters Initiative. As a part of this initiative the university has installed Sydney's largest percolation pit, capturing close to 70% of the stormwater runoff on campus. Surface runoff that would normally flow out to sea is redirected into the percolation pit from where it can recharge the aquifer.

Although this water is not directly used on the university's campuses, it replenishes the aquifer and therefore feeds UNSW's bore water system. This process enables UNSW to capture and return 160 megalitres of water to the aquifer per year, the equivalent of 64 Olympic-sized swimming pools.

Ongoing water conservation initiatives

We actively investigate opportunities to reduce water use at UNSW. Initiatives include:

- upgrading toilets and showers to incorporate high efficiency water-saving fixtures and fittings
- planting drought-tolerant grasses and native plants
- installing waterless urinals and timed-flow taps
- undertaking water consumption audits of all campus cooling towers to improve operational efficiency and reduce water wastage, also installing a water treatment plant
- incorporating bore water systems into three major building projects
- undertaking underground leak detection in pipes.



UNSW actively helps students and staff make sustainable transport choices.

More students and staff are travelling to UNSW by public transport, by bicycle and on foot than ever before. Every weekday, more than 60,000 trips are made to and from UNSW's Kensington campus making it the largest single destination in Sydney's eastern suburbs.

Unlike other Sydney-based universities, UNSW is not located close to a railway station meaning there is a higher reliance on the use of buses.

Annual travel survey

UNSW's annual Travel Survey provides critical input to the University's transport strategy. The survey is run every April and completed its seventh year in 2013. The university analyses the results of this survey each year to assess and design programs, projects, systems and procedures that promote and support active walking, cycling and public transport. The results are also used to assist in the development of measures to reduce car dependence and parking demand on campus.

In 2013 the Survey results were also highly valuable in helping UNSW plan for the NSW government's South East Light Rail project.

How students and staff get to campus

More than 9000 UNSW staff and students took part in the 2013 travel survey. Some key statistics from the survey results are as follows:

Public transport: Almost 60% of students travelled to UNSW by public transport in 2013. This figure has been consistently increasing from a baseline of 50% in 2007.

Private vehicles: 19% of respondents travelled to UNSW in private vehicles. This represents a 13% decrease in private vehicle usage since 2007. This is an average decrease of 235 private vehicle users each year, despite an increase in the total campus population of approximately 14,000 people since 2007.

Walking: For almost 20% of students and staff, walking is the preferred mode for journeys to and from campus. This has stayed relatively steady since 2007.

Cycling: The percentage of respondents cycling to and from the campus increased from 2.7% in 2007 to 4.7% in 2013. Despite coming from a low base, this figure demonstrates continued improvement in this form of active transport.

Public transport

UNSW works with the NSW Government, Randwick City Council and a range of transport planning agencies to improve access to UNSW's campuses.

UNSW's Kensington campus is currently the only major Sydney university without a nearby railway station, but this is set to change with the planned construction of the South East Light Rail project. UNSW is a key destination on this light rail route, which will extend from Circular Quay, through Sydney's CBD and on to UNSW via Central Station. The light rail project is expected to be completed in 2020.

Car sharing and car pooling

Car sharing

UNSW is the first university in Australia to have car sharing facilities on campus. Four vehicles from the car share company GoGet are available at Kensington for as little as an hour at a time. UNSW was the first University to have this car share service on site in 2011 and reported 23% more bookings per month in 2013 than the previous year, with over 100 students signed up to the service. Each GoGet car saves around 16 tonnes of GHG per year.

Car pooling

UNSW has a dedicated car-pooling website called MyCarpools which has been designed to match drivers with passengers based on location, travel times and personal preferences.

The benefits of car pooling include reducing travel congestion, pollution and the costs of travel.

Car parking

Whilst car parking at UNSW is limited, driving to and from the University remains attractive to many staff and students. Because car transportation is in direct conflict with the university's sustainability goals, UNSW has implemented the above strategies to reduce single passenger private vehicle dependency. In addition, we have increased car parking fees at a greater rate to encourage students and staff to choose more sustainable transport options. There are approximately 2,800 parking spaces on campus (including loading bays), with another 500 or more in the surrounding streets.

Campus fleet

UNSW ensures that a high proportion of its 83 fleet vehicles are energy-efficient or use alternative fuels. Fuel-efficient vehicles in the fleet include hybrid cars (Toyota Priuses) and an electric vehicle.

Bike club goes from strength to strength

On yer bike!

Over the last eight years, the UNSW Bike Club has grown into a unique, strong and dedicated team of volunteers. The club aims to empower students and staff to join the growing number of people choosing this popular method of transportation to campus.

Free bike maintenance workshops are run almost 30 times a year and anyone can drop by with their bike to learn about bicycle maintenance from the volunteer enthusiasts. Participants don't have to have any previous mechanical skills, it's more about teaching people to fix and maintain their own bike.

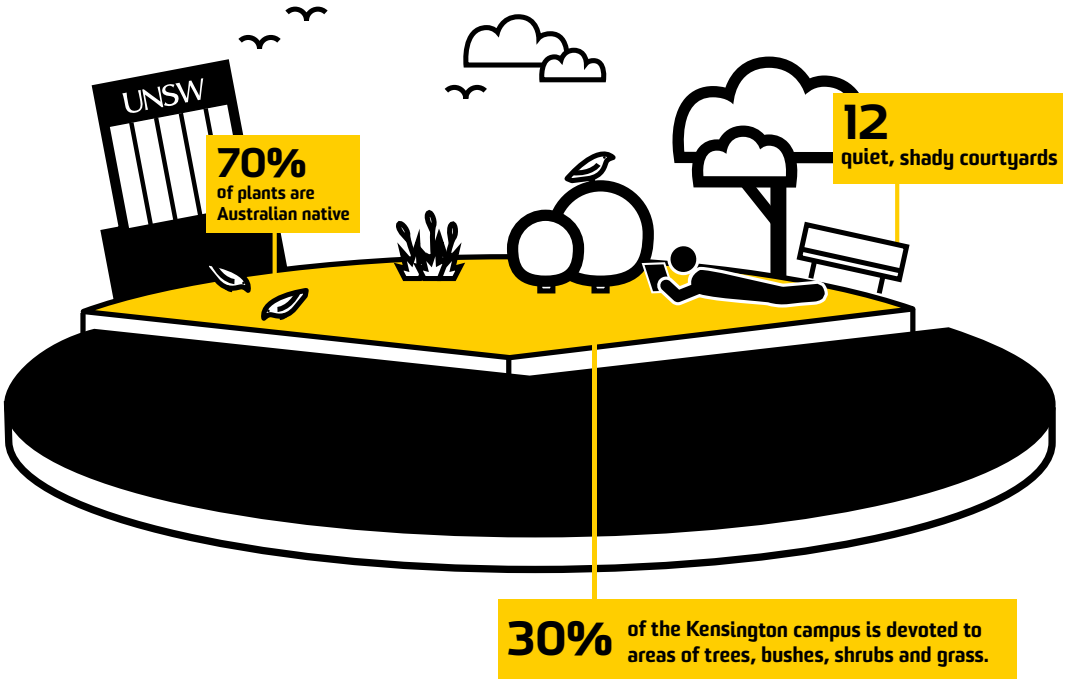
Bike Club volunteers also collaborate with UNSW Security Services' biannual collection of damaged and abandoned bikes from campus. Bikes which don't find a home through the U Committee are donated to the club and either fixed up and sold or stripped down for parts. Nothing is wasted.

The club also organises three to four group rides a semester. These rides offer inexperienced riders the chance to learn how to be a safe and courteous rider as well how to find the quieter routes. "The first time I rode from UNSW into the city was a revelation," one member shared. "I couldn't believe how easy it was!".

"I ride because it's sustainable, convenient, healthy, cheap and fun."

Eytan Rocheta,
UNSW Bike Club Secretary

Campus



UNSW's campuses inspire a green outlook

UNSW has appealing campus grounds that are planned, planted, and maintained with the local environment and ecology in mind. We minimise our use of toxic chemicals, protect wildlife habitat and conserve water and other natural resources.

Grounds management

UNSW maintains approximately 120,000m² of landscaped areas and another 80,000m² of playing fields. The university recognises that the way these grounds are managed can have significant environmental impacts and employs a number of strategies to ensure they are managed in a sustainable way. These strategies include:

- choosing appropriate plants (i.e. planting native species that complement the soil and climactic conditions)
- maintaining soil quality
- minimising the use of chemical and fertiliser treatments
- ensuring the responsible disposal of green waste.

Trees

UNSW is the proud caretaker of over 1,000 trees on the Kensington campus including a number of visually stunning 120-year-old Morton Bay Fig trees.

As well as contributing to a pleasing aesthetic, trees create a microclimate that can significantly reduce the 'urban heat island effect'. This provides staff and students with a more comfortable campus environment and the temperature decreases can significantly reduce the amount of energy required to cool (and in some instances to heat) buildings.

Campus grounds sustainability initiatives

Native planting policy

UNSW's planting policy is to promote local biodiversity. While the Kensington campus has some mature non-native trees, new plantings favour local native plants and grasses that are indigenous to Australia and the Randwick/ Kensington area. These plants are suited to the local climactic conditions, reducing their watering requirements, and allowing students from UNSW and beyond to learn about bioregionalism.

In 2013, 70% of plants on campus were noted as Australian native species.

Irrigation

UNSW has recently audited and updated its landscape irrigation and water storage systems, which has resulted in significant water savings. Where irrigation is required, it is delivered through drip irrigation rather than sprinkler systems, and uses bore water, rather than potable water.

Chemical and fertiliser use

UNSW has reduced its use of synthetic garden chemicals and replaced these with slow-release organic fertilisers wherever possible. This reduces potential toxicity issues, improves the soil structure and reduces watering requirements.

UNSW has limited the use of pesticides on campus through modifications in grounds maintenance contracts. Low toxicity chemical solutions are still used for pest and weed control, but only as a last resort.

Mulching

UNSW processes all tree prunings on site into mulch and woodchips to use in gardens across its campuses. Approximately 500 cubic metres of mulch was applied to the landscaped environment, significantly reducing evaporation and conserving water.

Hardy natives replace thirsty exotics

Reducing water use on campus

In 2013, as part of a wider strategy to reduce water use on campus, the UNSW Grounds Manager and his team trialled the planting of natives as opposed to water thirsty exotics.

Choosing a highly visible location on University Mall, between the Red Centre and the Robert Webster building, the team removed the water-loving Acorus plants and replaced them with almost 20 different species of the Eastern Suburbs Banksia scrub. At the same time they removed the high output sprinkler and installed a drip tube.

The 12-month trial has been a huge success and resulted in water savings of at least 50%. This strengthens the case for continuing the native plant replacement strategy across the whole campus. Reintroducing the Eastern Suburbs Banksia scrub into the area also has wider conservation and environmental benefits as it belongs to an endangered ecological community.

"The plants are absolutely thriving"
Mark Clark, Grounds Manager

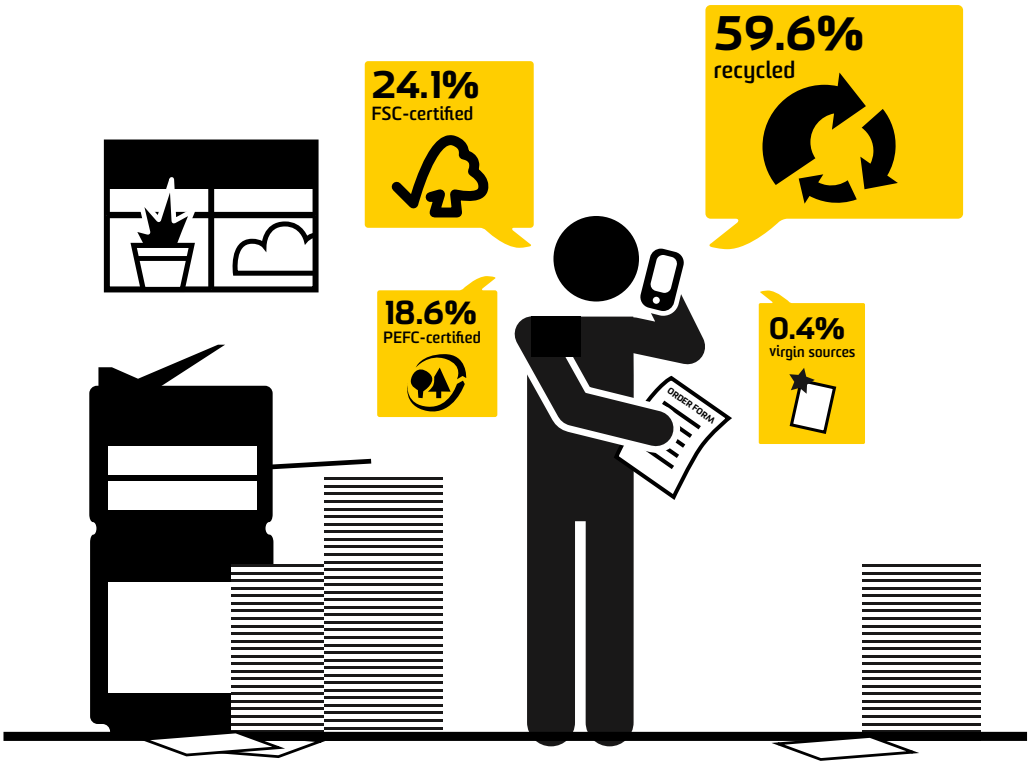
Technology in the garden

Computer-controlled watering systems, rain sensors and night-time watering systems are in operation at UNSW. These high-tech solutions are applied to approximately 80% of the Kensington campus and have significantly reduced overwatering.

Reusing and recycling

UNSW's campuses continue to evolve as we adapts facilities and landscapes to meet our changing needs. Surplus materials and equipment, such as old sandstone, paving bricks, outdoor furniture, plants, bike racks and bollards, are saved and stored on site by the UNSW grounds manager. This policy of reuse before recycling or disposal helps to minimise the waste from these adaptations and gives rise to the possibility of zero-purchase projects.

Purchasing



Sustainable purchasing powers our procurement

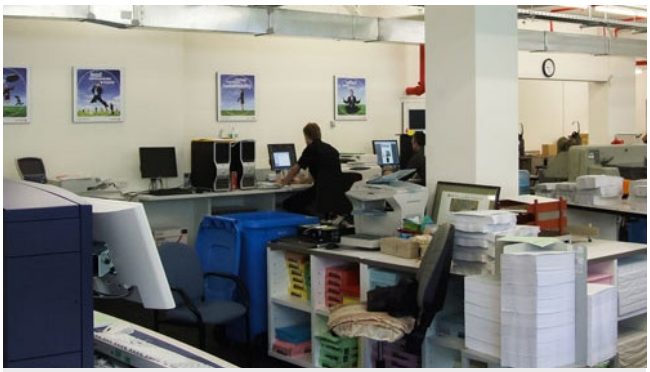
Sustainable procurement considers the broader financial, environmental and social cost of purchases made by UNSW.

Sustainable procurement at UNSW

Sustainable procurement at UNSW means that when buying goods and services we consider:

- strategies to avoid unnecessary consumption and manage demand
- ways to minimise the environmental impacts over the life of goods and services
- suppliers' social responsibility practices, including compliance with legislative obligations to employees
- value for money over the lifetime of goods and services, rather than just initial price.

The University encourages purchases to be made through the centralised strategic procurement office and, whenever possible, for them to be made online using e-procurement. This allows UNSW to more accurately measure and manage efficient material use and calculate carbon emissions. As use of e-procurement increases over time, the university will be able to generate more accurate data, presenting greater opportunities for tracking and assessing purchasing habits and volumes.



Think green, print green

Setting a high standard in environmental printing services

UNSW's onsite printing studio, P³, has set a high standard in environmental printing services and meets strict environmental requirements for sourcing copy paper. In 2013, over 99% of the 42,000 reams of paper supplied by P³ was either recycled (100% post-consumer waste); accredited by the FSC (Forest Stewardship Council) or PEFC (the world's largest forest certification organisation).

In addition to printing, P³ also distributes A4 and A3 sustainable paper (either 100% recycled, FSC or PEFC) to all sites on campus as part of their commitment to sustainability. Paper orders are delivered in mail delivery vans to further reduce carbon emissions. P³ also ensures spent print cartridges and equipment are recycled.

The print studio is a great asset for the University.

Sustainability features of current supply agreements

Stationery and office supplies

UNSW's preferred stationery supplier provides a range of environmentally preferred goods as a 'Planet Friendly' sub-brand. Items include copy paper and other paper products with recycled content, remanufactured laser toner cartridges, janitorial equipment, Fair Trade teas, coffees and hot chocolate. The supplier also encourages the return of their shipping packaging for reuse.

Office furniture

UNSW's preferred supplier for office chairs offers a range of Good Environmental Choice Australia certified chairs.

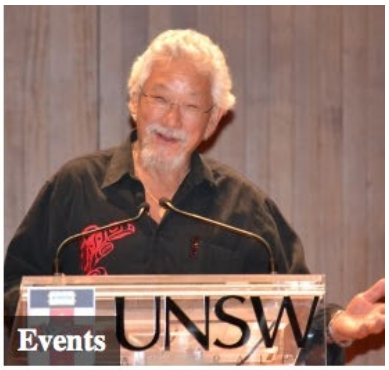
Travel / video conferencing

UNSW offers high quality video conferencing facilities as an alternative to staff travelling for meetings.

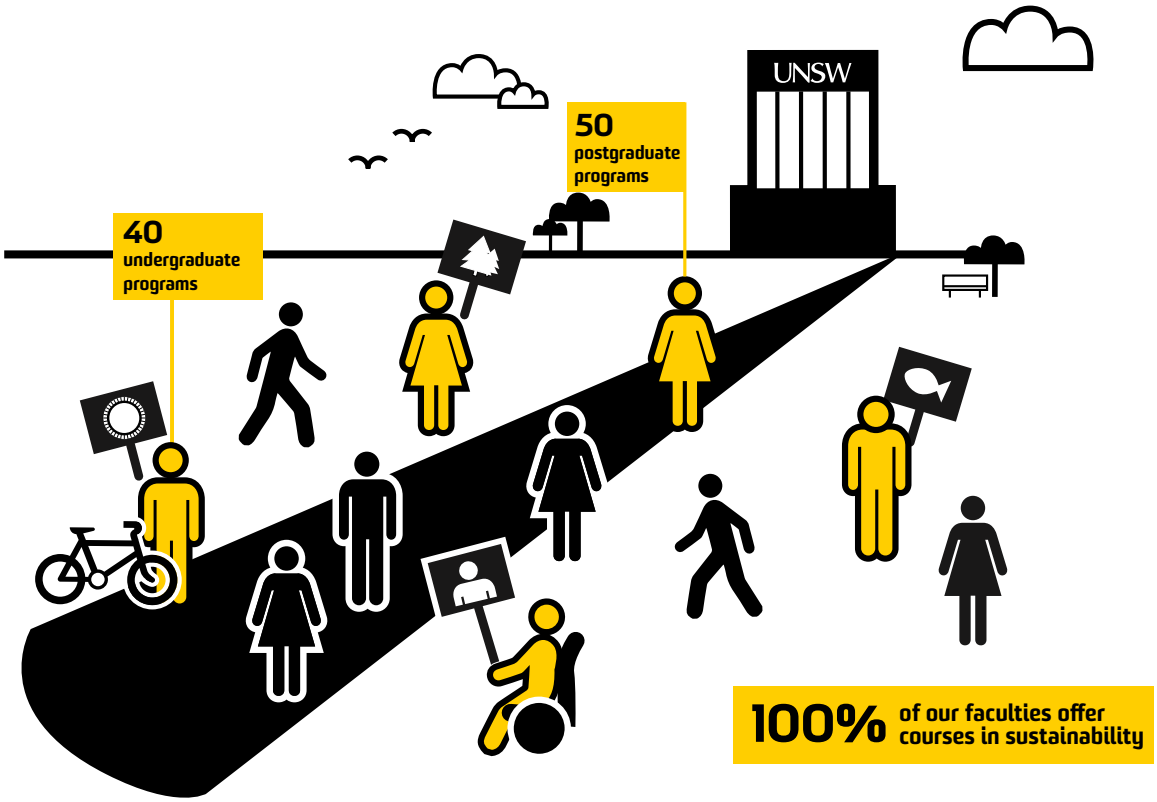
Community

UNSW is not simply a place to learn. It is a unique and diverse community of socially aware global citizens focused on creating positive change. UNSW's academics, researchers and students share a sense of compassion and appreciate that community service and public engagement is fundamental to the creation of sustainable communities.

In this section



Education



Sustainability curriculum

All eight faculties at UNSW offer opportunities to undertake studies with a sustainability focus. This equates to approximately 40 undergraduate and 50 postgraduate degree programs. In addition to the degree programs there are many hundreds of courses offered by the faculties and schools that offer specific sustainability training and education.

Key programs and courses

UNSW's sustainability focussed undergraduate and postgraduate degree programs include environmental engineering, environmental management, environmental studies, environmental science, photovoltaics and solar energy. There are also many courses that focus specifically on sustainability across programs related to the built environment, material sciences and law.

An unexpected interest in Sustainability

Lecturer Profile: Dr Patricia Strong, Australian School of Business

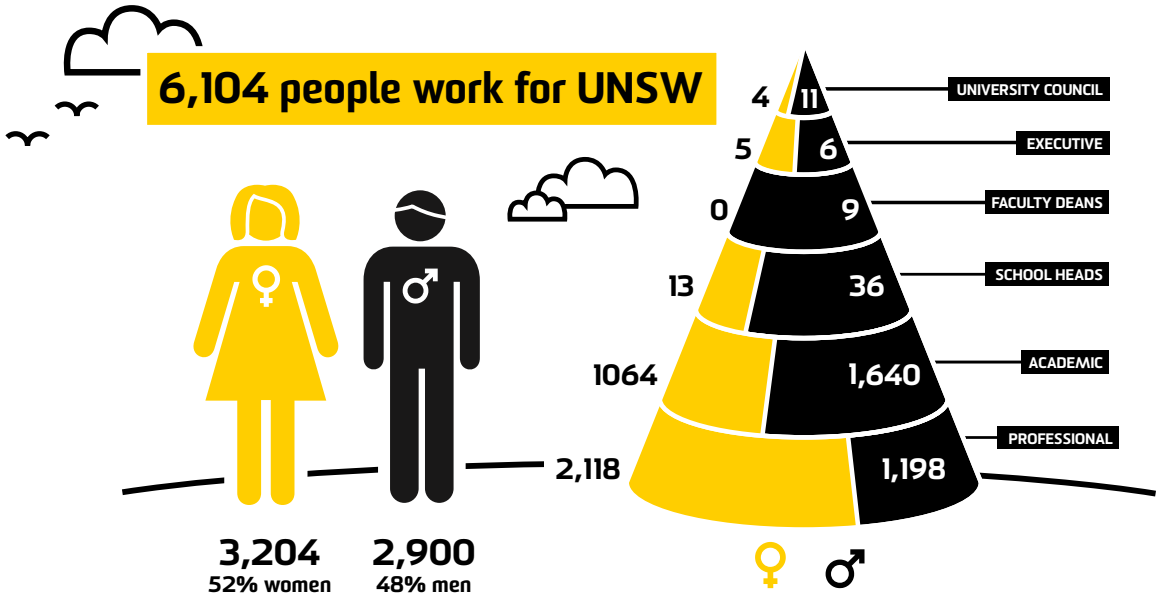
Dr Patricia Strong worked for 20 years in industry before transitioning into academia in 2001. She worked at the University of Sydney before joining UNSW's School of Accounting as a lecturer in 2008.

She is the first to admit that, "as an accountant, sustainability just wasn't on my radar". It was only when she started her PhD that her supervisor suggested she focus on sustainability reporting. Despite some reservations, Trish's PhD journey has completely changed her thinking about sustainability and its relevance to accounting and business.

As her PhD progressed and her own thinking towards traditional models of financial reporting became more critical, Trish identified a gap in what was being taught to accounting students at UNSW. Prior to 2012, sustainability reporting didn't feature in UNSW's accounting curriculum or textbook. She championed curriculum change and thanks to her research and some timely government funding, sustainability is now on the agenda. "Introducing sustainability reporting into the first year undergraduate program creates the opportunity for students to think more critically about corporate reporting. Now students have the chance to consider the firm's long term impact in terms of environmental, social and governance as well as financial, right from the start of their degree."

Although accounting isn't the first subject that springs to mind when thinking about sustainability, Trish's story demonstrates far-reaching, positive consequences for UNSW's students and the global sustainability movement.

Equity and diversity



Providing an equitable and inclusive environment for all.

Equity is a fundamental element of the UNSW vision and is a guiding principle in the University's Strategic Intent. The maintenance of an equitable and inclusive campus and workplace is fundamental to UNSW's vision of being considered one of the world's top universities.

UNSW: Committed to equity and diversity

The University:

- fosters a culture that values and responds to the rich diversity of its staff and students
- provides equal opportunity by removing barriers to participation and progression in employment and education so that all staff and students have the opportunity to fully contribute to University life
- offers programs that aim to overcome past disadvantage for members of staff and student equity groups
- promotes clear and accountable educational and management policies and practices to engender trust between managers and their staff and students
- enhances the quality of students' learning through the provision of culturally, socially and gender inclusive education in areas such as curricula, teaching methods, assessment and review provisions, written and audiovisual material and support services
- ensures that its staff and students are aware of their rights and their responsibilities as University members.

Students

UNSW is Australia's most cosmopolitan university. Our Australian students come from diverse backgrounds, many being first in their family to attend university.

We are also Australia's first international university, having enrolled significant numbers of international students since 1951, with more than 120 countries now represented.

In the reporting period, enrolments numbered:

- 40,914 Australian students
- 13,603 international students
- The top 10 countries of origin for international students were China, Malaysia, Indonesia, USA, Singapore, Korea, India, Vietnam, Brazil and Iran.

Student Equity and Disabilities Unit

The Student Equity and Disabilities Unit provide expertise in educational liaison and student equity and ensure that UNSW:

- provides safe and inclusive environment for all students
- is free from discrimination
- is a place where diversity and multiculturalism is celebrated and welcomed.

This unit also manages ASPIRE, an outreach program aimed at students from low socioeconomic backgrounds in schools across Sydney and regional New South Wales that encourages and helps them on the path to university.

Staff

UNSW staff are supported by Workplace Diversity which provides strategic advice to management and the University Executive on opportunities to address barriers to equity and inclusion in the workplace and campus community.

Workplace Diversity advocates for a university community that is aware and informed, tolerant of diversity, and intellectually and emotionally comfortable with difference. The unit support staff and students in the development of gender and cultural competence, a core element of the UNSW values.

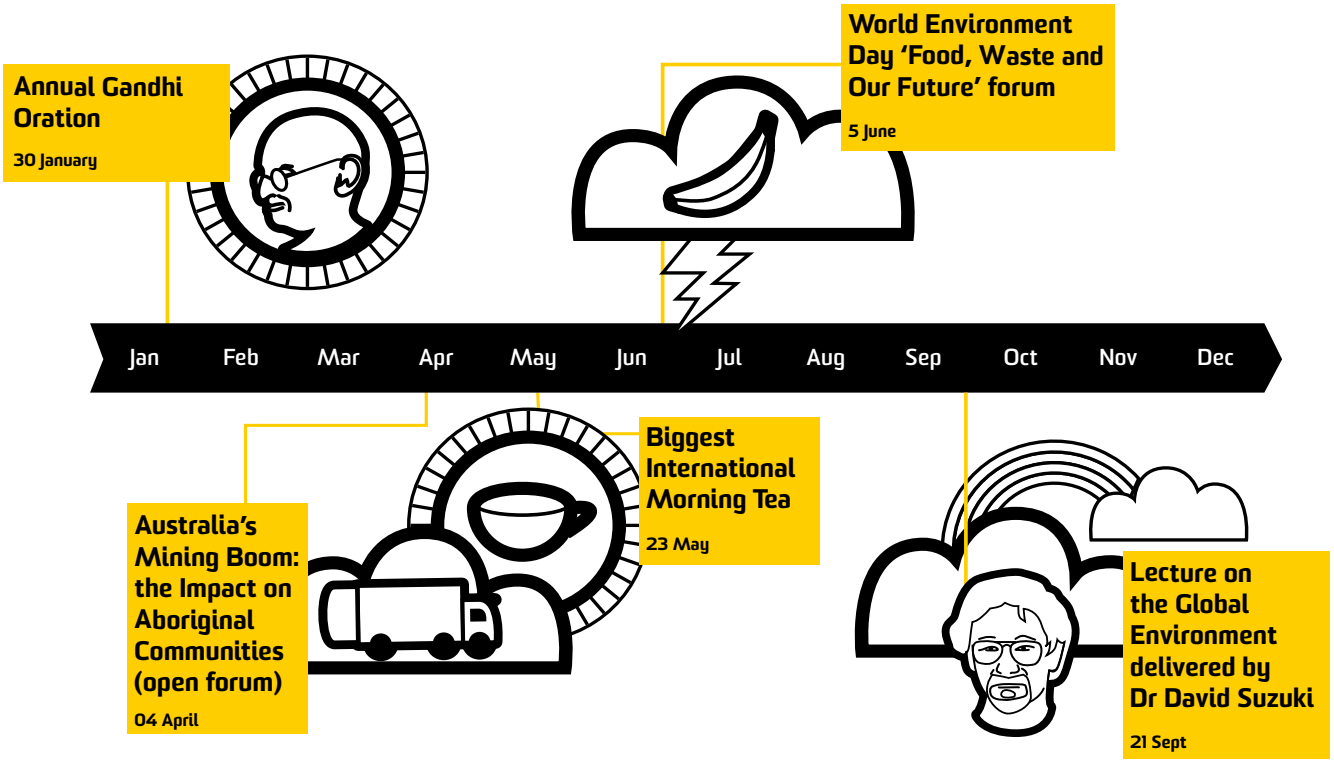
Addressing the imbalance in NSW higher education

UNSW helps students with low socio-economic backgrounds to aim high

The UNSW ASPIRE Program aims to address the imbalance in NSW higher education by helping low socio-economic status students achieve greater access to university. ASPIRE works with communities to overcome the barriers facing disadvantaged students, inspiring them to look past today and consider what is possible with higher education.

In 2007 UNSW Australia launched ASPIRE as a pilot program with 16 students. In 2010, ten of those sixteen students received offers to university. Today, ASPIRE partners with 57 low socio-economic schools, reaches almost 7000 students a year and has 200 UNSW student volunteers helping to deliver the programs. Programs include in-school workshops from kindergarten to Year 12, homework clubs and community programs, regional career expos, on-campus events and Sydney work-experience opportunities.

Events



UNSW: Advocating for the environment, social justice and equity.

UNSW hosts a wide range of events both on and off of its campuses throughout the year. In 2013, a considerable number of these events focused on the environment, social justice and equity.

Highlights

UNSW and the Arc student group organised over 30 sustainability programs and events including:

- World Environment Day
- Jack Beale Lecture with David Suzuki
- Fairtrade Market Day and Fairtrade Fortnight
- Earth Hour events
- Ride to Work Day
- Walk to Work Day
- Clean up Australia activities
- Walk Against Warming
- International Day against Homophobia
- Official unveiling of the Nelson Mandala Bust
- UNSW Women in Engineering Awards.

Food, waste and our future

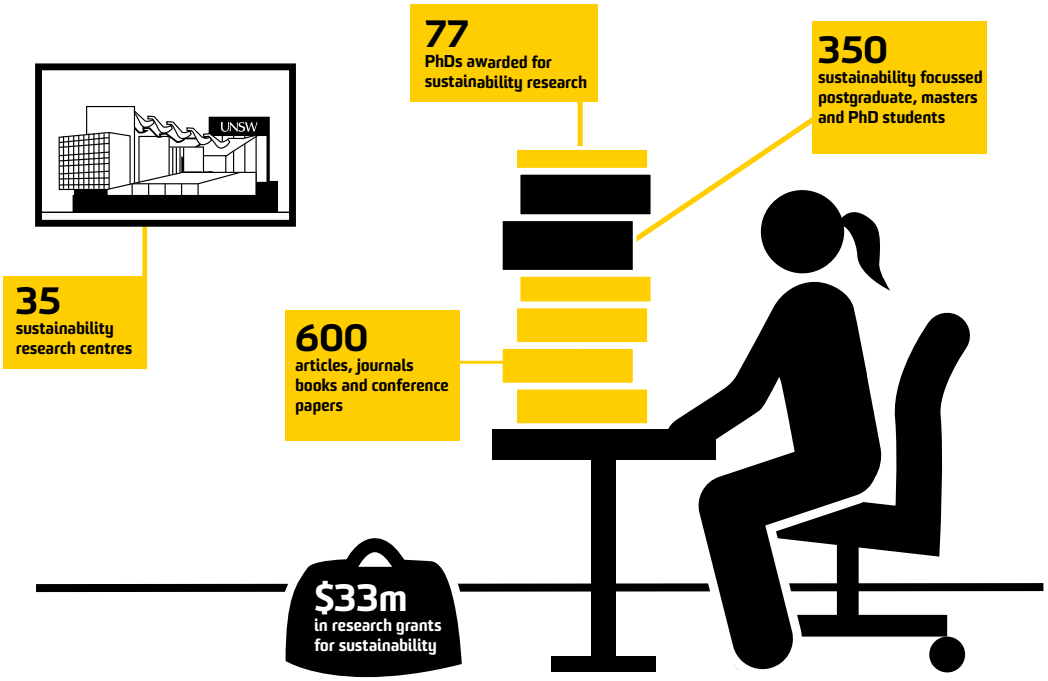
Highlighting wasteful attitudes

On World Environment Day in June 2013 a senior United Nations official told a UNSW audience it is “inexcusable” that so much food is wasted in the world “when millions do not have enough to eat”.

To mark World Environment Day, UNSW Sustainability and the Institute for Environmental Studies hosted a lively debate and Q&A featuring Ronnie Khan, the founder of food rescue charity OzHarvest, along with politicians and UNSW representatives.

Around 200 guests attended the event with many taking to social media to air their views. Director of UNSW Safety and Sustainability and event organiser, Aaron Magner, told the audience “the food waste battle must be waged in every city, community, company and home kitchen”.

Research



UNSW is leading the charge in sustainability research.

UNSW academic staff and research students are at the forefront of sustainability research. Our electrical engineering researchers are international leaders in the development of renewable energy technologies and our economists and social scientists have devised policy responses that help combat the effects of diminishing resources.

Researching water, environment and sustainability at UNSW

UNSW measures a number of research indicators that demonstrate the most active areas of interest for researchers at the University over the course of a year.

One of the top research indicators in 2013 was the topic areas of Water, Environment and Sustainability. Activities carried out under the umbrella of this research indicator:

- netted over $33 million in research grants
- ranked fourth out of 10 for the percentage of income received by the University
- lead to the publication of over 600 articles, books, journal articles and conference papers
- include the award of 77 PhDs
- include the enrolment of over 350 postgraduates, masters and PhD candidates.

Research centres

UNSW has established or partners with more than 35 research centres that focus on sustainability.

These centres investigate a variety of multi-disciplinary areas including:

- alternative energies and fuels
- climate change
- conservation biology and biodiversity
- environmental modelling
- genomics
- marine biology and oceanography
- rainfall, rivers and water
- river and wetland ecology
- sustainable cities
- sustainable materials and recycling
- water purification
- water use and re-use.

The above focus areas are supported by the following research centres:

- ARC Photovoltaics Centre of Excellence
- ARC CoE for Climate System Science
- Australian Centre for Sustainable Mining Practices
- Australian Climate Change Adaptation Research Network for Settlements and Infrastructure
- Australian Energy Research Institute
- Centre for Ecosystem Science
- Australian Housing & Urban Research Institute
- Australian Human Rights Centre
- Australian Institute for Population Ageing Research
- Australian Poultry CRC
- Australian Wetlands and Rivers Centre
- Blue Mountains World Heritage Institute
- Centre for Energy & Environmental Markets
- Centre for Infrastructure and Engineering Safety
- Centre for Marine Bio-Innovation
- Centre for Social Impact
- Centre for Sustainable Materials Research & Technology Centre (SMaRT)
- City Futures Research Centre
- Climate Change Research Centre
- Connected Waters Initiative
- CRC for Cotton Catchment Communities
- CRC for Greenhouse Gas Technology
- CRC for Low Carbon Living
- Evolution & Ecology Research Centre
- Gilbert and Tobin Centre of Public Law
- Institute of Environmental Studies
- National Centre for Groundwater Research & Training
- National Centre of Excellence in Desalination
- National Centre of Excellence in Water Recycling
- Research Centre for Integrated Transport Innovation
- School of Photovoltaic and Renewable Energy Engineering
- Sino-Australian Research Centre for Coastal Management
- Sustainable Design and Development Research Cluster
- Sydney Institute for Marine Sciences (SIMS)
- UNESCO Centre for Membrane Science & Technology
- Universities Climate Consortium
- Water Research Centre
- Water Research Laboratory

Transforming waste

UNSW PhD candidate creates innovative particle board

Andrea's Wechsler's degree is a PhD in Built Environment; however she is doing Interdisciplinary research between the Faculty and the School of Material Sciences and Engineering.

Her research is based on the development of sustainable panel materials for the Built Environment. These materials are food industry and forestry by products, bonded with a non toxic and renewable adhesive. She aims to develop a material to use in our daily life; this new composite panel material is local, weather and use resistant, healthy, environmentally friendly; and aesthetically integrated with the prime sources.

Research centre highlights

Centre for Sustainable Materials Research and Technology (SMaRT)

SMaRT was established to work with industry partners to develop innovative materials and processes that have a reduced impact on the environment. The centre's work focuses on energy efficiencies, recycling processes and waste minimisation. Professor Veena Sahajwalla, the centre's director, recently received international attention after pioneering the use of waste plastic and tyres in a 'green steelmaking' processes.

Australian Energy Research Institute

The AERI is a sustainable energy think tank that focuses on transforming energy research into practical applications. The Institute builds upon 30 years of energy research leadership at UNSW and has launched coordinated strategies to address every level of the energy challenge.

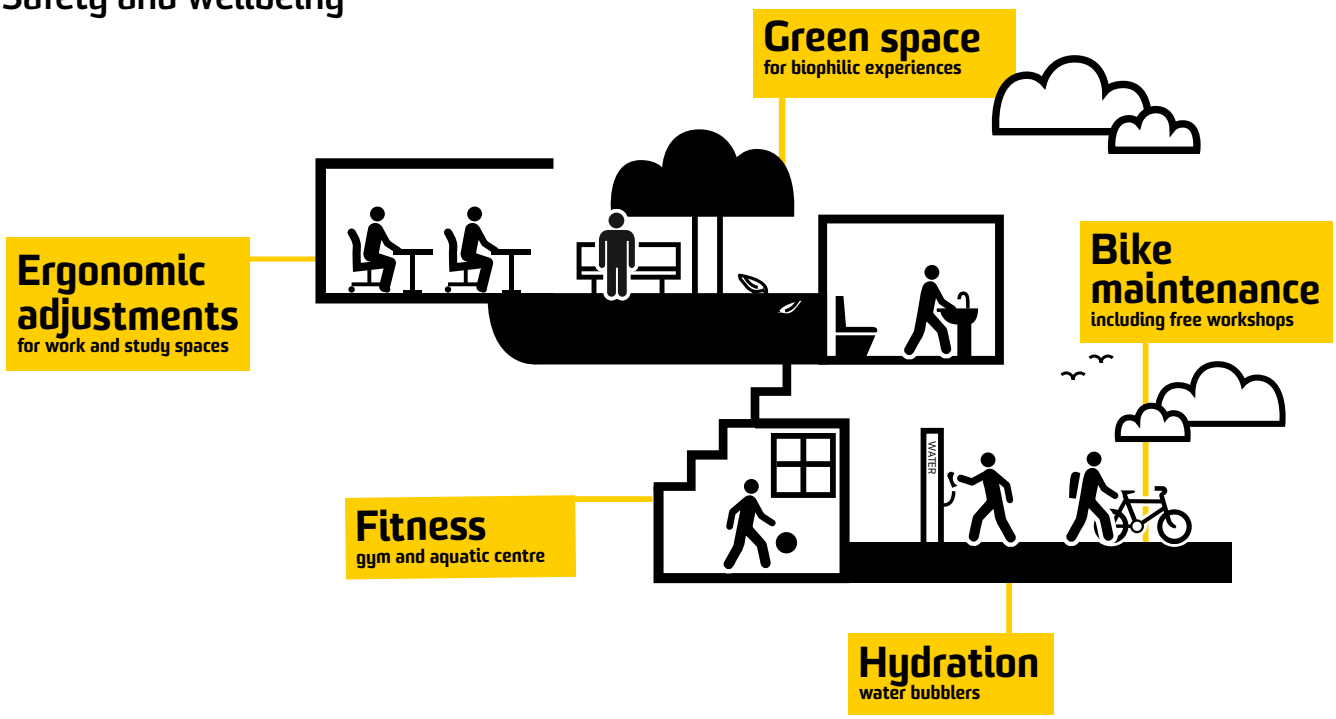
Climate Change Research Centre

Bringing together more than 60 researchers from various disciplines across the University, CCRC is one of the largest university research facilities of its kind in Australia. The centre's multi-disciplinary team covers all aspects of atmospheric, oceanic and terrestrial processes.

Centre for Energy and Environmental Markets (CEEM)

CEEM undertakes interdisciplinary research in the design, analysis and performance of energy and environmental markets and their associated policy frameworks. It brings together UNSW researchers from the Australian School of Business, the Faculty of Engineering, the Faculty of Arts and Social Sciences, the Institute of Environmental Studies, and the Faculty of Law and works with a growing number of international partners.

Safety and wellbeing



UNSW provides its staff and students with access to a range of resources that promote a safe, active, healthy, happy and productive campus experience.

Safety

As one of the University's guiding principles, safety is central to everything we do. As well as working hard to ensure a safe campus experience, the University proactively manages risks with a series of risk management and continuous improvement strategies.

Health and safety management system

UNSW's Health and Safety management system (HSMS) is a set of plans, actions and procedures that are designed to systematically manage health and safety in the workplace. The system is actively endorsed by UNSW and seeks to:

- provide a safe and healthy workplace that prevents and/or reduces illnesses and injuries for employees and contractors
- identify workplace hazards, assess and control risks
- actively involve managers, supervisors, and employees and their representatives in health and safety matters
- provide information and training for employees at all levels to enable them to work safely.

More information on health and safety governance and training can be found at UNSW's Health and Safety.

Our safety performance

Wellbeing

Hydration

Because staying hydrated is essential for optimal health and brain function, UNSW has installed free water refill stations and fountains (or bubblers) around the Kensington campus.

The refill stations have been fitted with both a tap and a spout to make it easy for students and staff to refill water bottles. They are vandalism resistant, hygienic and accessible to wheelchair users and children.

Ergonomic adjustments

With many staff and students spending considerable amounts of time sitting for long periods at desktop and laptop computers there is an increased risk of workplace-related musculoskeletal disorders. This can manifest as neck pain, back pain, blurry vision and poor posture.

UNSW has responded to this by providing:

- compulsory online ergonomic training to all staff
- the opportunity for staff to trial ergonomically designed equipment before their unit commits to the purchase of this equipment
- a workstation assessment service
- general advice and resources on ergonomics.

Bicycle maintenance

Almost 30 times every year, free bicycle maintenance workshops are run by UNSW Bike Club Anyone is welcome to drop by with their bike to learn about bicycle maintenance from the volunteer enthusiasts.

Fitness

UNSW encourages a healthy lifestyle through the on-campus Fitness and Aquatic Centre. The centre has a range of group fitness classes, personal fitness sessions, a pool and gym to help staff and students to stay fit.

In addition, Arc (UNSW's student organisation) has more than 30 fitness clubs that encourage students to keep active and maintain their fitness throughout their studies.

Green space

In response to the growing amount of literature surrounding the importance of green space in physical health, mental health and overall wellbeing, UNSW has increased investment in the development of its green spaces.

With approximately 30% of the Kensington campus devoted to green space and 12 shady, intimate courtyards, the University provides a variety of opportunities to escape the built environment and enjoy what's known as a biophilic experience.

Thoughtful Foods

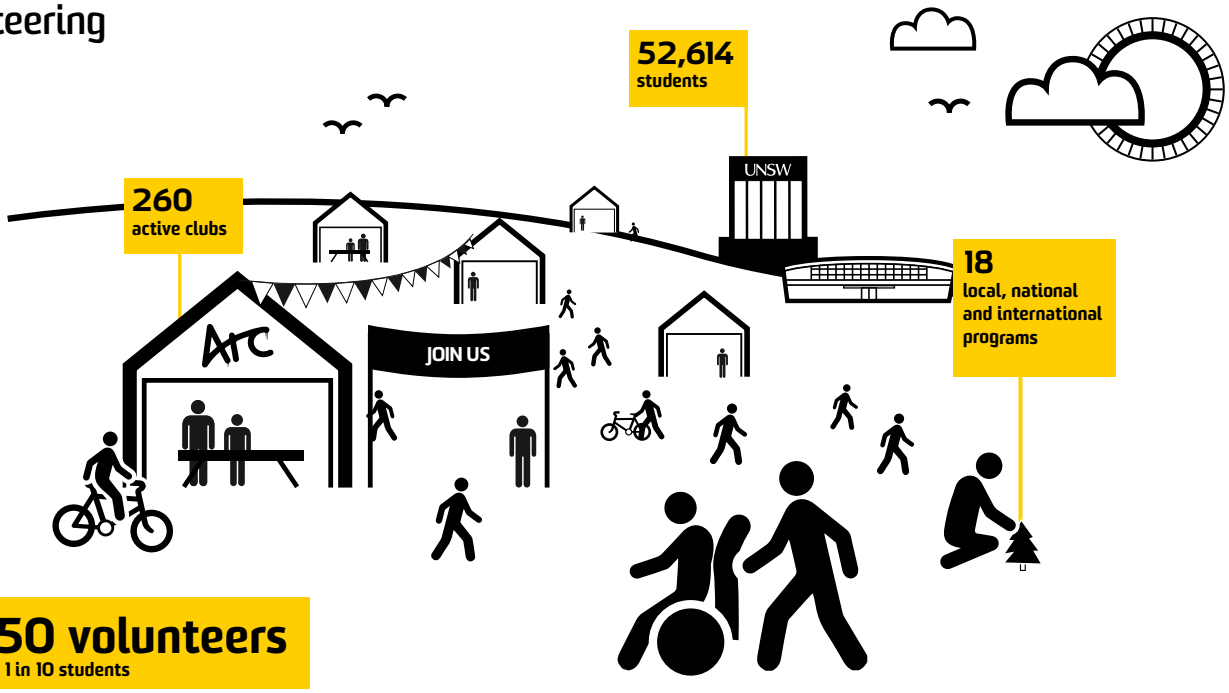
Delicious food with a clear conscience

Thoughtful Foods is a volunteer run, not-for-profit food cooperative providing healthy, affordable, minimally packaged and ethically produced wholefoods and household products to UNSW students, staff and the local community.

With a small shop on campus, most of their products are bought in bulk. Shoppers bring their own containers to scoop or pour out exactly the amount they need, cutting down dramatically on packaging.

Thoughtful Foods' focus on ethically, socially and environmentally sound products ensures they deliver numerous health and wellbeing benefits to the UNSW and wider community.

Volunteering



Volunteering at UNSW: growing friendships, skills and community.

UNSW provides considerable support and resources to engaging students in sustainability learning experiences outside the classroom. Sponsored co-curricular offerings deepen students' understanding and application of sustainability principles and embed this into the campus experience.

Volunteering on campus

The student organisation, Arc, is the hub of volunteering at UNSW. Under Arc's competent leadership, with guidance and support provided by the University, volunteering has grown steadily over the years.

In this reporting period almost 5,500 volunteers worked many thousands of hours running Arc's 18 volunteer programs and 260 clubs. Volunteering activities complement the academic side of university life by providing a vibrant culture of 'giving back' and greatly enhance the experience of everyone at UNSW.

Arc student development committee

The Student Development Committee is Arc's student body responsible for overseeing the support provided to Arc-affiliated clubs, volunteer programs, courses, grants and relevant student events. Students are elected to represent the interests of Arc clubs and volunteer programs.

Volunteer programs with a sustainability focus

BRIGHTSIDE

BRIGHTSIDE is an artistic mentoring program that pairs up COFA and UNSW students with underprivileged Sydney high school students with a focus on indigenous youth, to inspire and assist them in developing their creative skills, confidence and discover new career pathways.

Global Village

Between each semester, Global Village sends teams of students to developing nations to lend a helping hand with a local community project. Students have been to Malaysia, Thailand, Fiji, and Nepal to work on projects including building houses to teaching in local primary and high schools.

Mosaic Mentoring

This program offers both UNSW volunteers and local Sydney high school students the unique opportunity to come together and get talking about the social and cultural issues which shape and define us.

Shack tutoring

The aim of the program is to provide a free high school tuition service to local students who have been identified as disadvantaged, or who cannot access a required paid tuition service.

Stationery reuse centre

This ingenious, free program provides the UNSW community with good quality recycled stationery that has been previously used or discarded, preventing it from going to landfill.

Walama Muru

Walama Muru means ‘a return of road or path’ and offers an opportunity for UNSW students to travel to a regional Aboriginal community in order to learn and share in the local Aboriginal culture

An army to fight society's problems

The Volunteer Army encourages UNSW students to get into the community and assist not-for-profit organisations and the local community at different functions and events. David Chan, the Volunteer Army's Student Coordinator, tells us all about it:

How long has the Volunteer Army been running?

Since 2010.

What is the current number of members?

We have almost 4000 members on our database.

How many missions do you undertake a year?

About 120, although it's up to students how many missions they choose to undertake. Each mission varies, some may be as small as one or two volunteers assisting with admin work, others as large as fifty plus members helping out with a large event or fundraiser.

What kind of organisations do you volunteer for?

We support the activities of non-profit organisations that have opportunities which fit our framework. Missions must be accessible and contribute to the development of our student volunteers.

The Volunteer Army has undertaken recent missions for The Cancer Council, Conservation Volunteers Australia, the CREATE Foundation, Salvation Army, Our Big Kitchen, Starlight Children's Foundation, and The Children's Hospital at Westmead.

What's the most interesting mission you can remember?

Most recently we've organised a Volunteer Army – Conservation Volunteers Australia Trip to Montague Island. Ten students with a particular interest in sustainability and the environment have volunteered and in the lead up are

conducting their own fundraising and awareness-raising events. This is a great opportunity for students to contribute to something they are passionate about.

Why is volunteering important?

Personally, I've had a passion for volunteering and social justice since High School. For the community, I think it's important for improving education and awareness of social issues. For our students, volunteering is a fantastic opportunity to develop their skills whilst giving back to the community.

Additional information

Building capacity in leadership, strengthening operations and maximising our resources to create the best possible campus environment for learning and research underpins the pursuit of our strategic priorities across the University.

Global Reporting Index

The following disclosure elements and indicators from the Global Reporting Initiative (GRI) G3 Reporting Guidelines have been used in the preparation of this report. In this section, we provide a table comparing information on this report to the guidelines of the GRI, entitled 'Sustainability Reporting Guidelines 2006.'

No.	Short Description / Title of Disclosure	Notes
1	**Strategy and Analysis**	
1.1	Statement from the most senior decision-maker of the organisation	See Overview.
2	**Organisational Profile**	
2.1	Name of the organisation	University of New South Wales
2.2	Primary brands, products, and/or services	Education and Research
2.3	Operational structure	See UNSW organisational chart
2.4	Location of organisation's headquarters.	Randwick, Sydney, NSW, Australia
2.5	Number and name of countries where the organisation operates	1
2.6	Nature of ownership and legal form	Body corporate under statute
2.7	Markets served	Main markets served are Australia, India, China, United States
2.8	Scale of the reporting organisation	See About UNSW
2.9	Significant changes	There were no significant operational changes in the past year
2.10	Awards received	See Appendix 3: Prizes
3	**Report Parameters**	
3.1	Reporting period	1 January 2013 to 31 December 2013
3.2	Date of most recent previous report	This is UNSW's first sustainability report

Table continued on next page

No.	Short Description / Title of Disclosure	Notes
3.3	Reporting cycle	Calendar year to be consistent with UNSW's Financial Reporting period. It is UNSW's intention to produce an annual sustainability report.
3.4	Contact point	Aaron Magner, Director of UNSW Safety and Sustainability. a.magner@unsw.edu.au
3.5	Process for defining report content	See Overview
3.6	Boundary of the report	See Overview
3.7	State any specific limitations	None
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations	The reporting boundary includes controlled entitites, subsidiaries, leased facilities, outsourced operations where these fall within UNSW's operational control. This report applies the definition for "operational control" in section 11 of the National Greenhouse and Energy Reporting Act 2007.
3.9	Data measurement techniques and the bases of calculations	See Overview
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement	Not applicable as this is UNSW's first report
3.11	Significant changes from previous reporting periods	Not applicable as this is UNSW's first report
3.12	Table identifying the location of the Standard Disclosures in the report.	See Appendix 1: GRI Table
4	**Governance**	
4.1	Governance structure	In accordance with the University of New South Wales Act 1989 (NSW), UNSW is governed by a Council of 15 members representing University and community interests.
4.2	Indicate whether the chair of the highest governance body is also an executive officer.	The Chancellor is the chair of the University Council, a non-executive position. The Vice-Chancellor is the Principal Executive Officer of the University and is responsible for the overall direction of corporate planning, budget activities and external relations. Under the University Council, the Vice-Chancellor manages and supervises the administrative, financial and other activities of the University.

Table continued on next page

No.	Short Description / Title of Disclosure	Notes
4.3	For organisations that have a unitary board structure, state the number of members of the highest governance body	Of the 15 members of University Council, three are official members (the Vice-Chancellor, President of Academic Board and the Chancellor). Others include: • 2 ministerial appointments • 2 elected academic staff • 2 council appointees • 2 elected students (1 undergraduate, 1 post-graduate) • 1 elected non-academic staff.
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	There is a Student Representative Council with elected student leader office bearers that meet the Vice-Chancellor and Executive Team to raise issues on behalf of students on a regular basis. The Vice-Chancellor also holds regular town hall meetings where members of staff are able to ask questions. The University also recognises and meets with the trade unions including the NTEU, CPSU and United Voice, as employee representatives.
4.12	Externally developed economic, environmental, and social charters, principles to which the organisation subscribes/ endorses	See Appendix 2: Declarations and charter
4.14	List of stakeholder groups engaged by the organisation	Stakeholder groups the university engages with include students, staff, alumni, donors, government, local councils, suppliers, other universities, student organisations and staff unions.
4.15	Basis for identification and selection of stakeholders with whom to engage	See Overview
4.16	Approaches to stakeholder engagement	See Overview
EC	**Economic**	
EC1	Direct economic value generated and distributed (Core)	The economic performance of the University is reported on in the UNSW Annual Report.
EC3	Coverage of the organisation's defined benefit plan obligations (Core)	No defined benefit super
EC4	Significant financial assistance received from government (Core)	See UNSW Annual Report
EN	Environmental	
EN2	Materials used that are recycled (Core)	See Environment, Purchasing
EN3	Direct energy consumption (Core)	See Environment, Energy

Table continued on next page

No.	Short Description / Title of Disclosure	Notes
EN4	Indirect energy consumption (Core)	See Environment, Energy
EN8	Water withdrawal by source (Core)	See Environment, Water
EN16	Direct and indirect greenhouse gas emissions by weight (Core)	See Environment, Energy
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved (Additional)	See Environment, Energy
EN22	Waste by type and disposal method (Core)	See Environment, Waste
EN23	Significant spills (Core)	None
EN24	Waste deemed hazardous under the terms of the Basel Convention (Additional)	None
EN28	Significant fines and total number of non-monetary sanctions (Core)	None
EN29	Significant environmental impacts of transporting products (Additional)	None
LA	**Labour Practices**	
LA1	Total workforce (Core)	See Community, Equity and Diversity
LA4	Employees covered by collective bargaining agreements (Core)	UNSW Employees are covered by two enterprise agreements. The UNSW (Academic Staff) Enterprise Agreement 2011 and the UNSW (Professional Staff) Enterprise Agreement 2010. See UNSW Human Resources Enterprise Agreements.
LA7	Rates of injury, occupational diseases, lost days and absenteeism, and number of work related fatalities by region (Core)	See Community, Safety and Wellbeing
LA9	Health and safety topics covered informal agreements with trade unions (Additional)	The UNSW (Academic Staff) Enterprise Agreement 2011 and the UNSW (Professional Staff) Enterprise Agreement 2010 contains provisions relating to Occupational Health and Safety. See UNSW Human Resources Enterprise Agreements
LA13	Composition of governance bodies and employees according to gender, and other diversity indicators (Additional)	See Community, Equity and Diversity
HR	**Human Rights**	
HR3	Employee training on human rights (Additional)	See UNSW Equity and Diversity statement
HR4	Incidents of discrimination (Core)	None
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk (Core)	None

Table continued on next page

No.	Short Description / Title of Disclosure	Notes
HR6	Operations identified as having significant risk for incidents of child labour (Core)	None
HR7	Operations identified as having significant risk for incidents of forced or compulsory labour (Core)	None
SO	Society	
SO4	Actions taken in response to incidents of corruption (Core)	No incidents during reporting period
SO5	Public policy positions and participation in public policy development and lobbying (Core)	See UNSW Code of Conduct. See also Community, Research and UNSW Newsroom
SO8	Significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations (Core)	In a decision of the NSW Industrial Court issued in March 2013, UNSW was found to have breached the Work, Health and Safety Act 2000 after a student suffered leg injuries and a broken wrist after falling from a boat while undertaking a research field trip on 31 July 2009. UNSW pleaded guilty and received a fine of $100,000. See WorkCover NSW report.
PR	**Product Responsibility**	
PR2	Incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts (Additional)	None
PR5	Practices related to customer satisfaction (Additional)	UNSW undertakes a regular graduate satisfaction survey of all UNSW graduates approximately four months after they complete the requirements for their awards. For more information see UNSW's Business Reporting and Intelligence, and Data Governance.
PR7	Incidents of non-compliance with regulations and voluntary codes concerning marketing communications (Additional)	None
PR8	Substantiated complaints regarding breaches of customer privacy (Additional)	None
PR9	Significant fines for non-compliance with laws and regulations concerning the provision and use of products and services (Core).	None

GRI Application Table

We believe this report qualifies for application level C of the Global Reporting Initiative (GRI) G3 Sustainability Reporting Guidelines. Details of the profile disclosures and performance indicators addressed in this report can be found in the table at Appendix A and on the UNSW Sustainability website.

Declarations and charters

The following are the major declarations and organisations that are endorsed by UNSW and call for universities to make a strong commitment to the implementation of sustainability.

Declarations and Charters	Organisation or Event	Main Goal
Agenda 21 (see Chapter 36 'Education, Public Awareness and Training')	UNESCO	Set in place a range of activities to implement global sustainable development. Advocates a holistic approach to environmental education.
Australian Universities Ecological Development Charter	National Union of Students	Provide a strong framework to guide sustainability within Australian universities. Similar in content to the Talloires Declaration.
AVCC Policy on Education for Sustainable Development	Universities Australia	Commit to education for sustainable development and acknowledge the leading role played by universities in furthering the goals of the UN Decade of Education for Sustainable Development (DESD).
Kyoto Declaration on Sustainable Development	United Nations	Urge universities worldwide to seek, establish and disseminate a clearer understanding of sustainable development. It is recommended that each university have its own action plan that makes an institutional commitment to the principle and practice of sustainable development.
Sapporo Sustainability Declaration	G8 University Summit	Outline the responsibility of universities to contribute towards sustainability and the specific actions they must undertake to fulfil that responsibility. It recognises eight principles concerning the role of universities in global efforts to attain sustainability.
Talloires Declaration	University Leaders for a Sustainable Future	Outlines a 10-point action plan for incorporating sustainability and environmental literacy in teaching, research, operations and outreach at colleges and universities.
The Greenhouse Challenge	Australian Greenhouse Office	Reduce greenhouse gas emissions from buildings, waste products and plant and office equipment
United Nations Decade of Education for Sustainable Development (DESD) 2005-2015.	UNESCO	Implement environmental education globally, for everyone's benefit, while working to build the community's capacity to co-create a sustainable future

Table continued on next page

Declarations and Charters	Organisation or Event	Main Goal
Universitas 21 Statement on Sustainability	Universitas 21 (U21)	Member network of 20 research-led universities that benchmark against each other and commit to progressing global sustainable development in five areas: 1. research towards sustainable futures 2. education for sustainability 3. universities as living laboratories for sustainability 4. enhancing citizenship and engagement 5. building capacity through cross-network collaboration and action.
Sustainability Collaboration Agreement	Randwick City Council	Enables UNSW students to access internship and placement opportunities with Randwick Council and for the council to access a number of specialist sustainability activities underway across the University. It facilitates practical student learning and the application of particular areas of research and teaching into on-ground sustainability related projects or strategy areas being delivered through Council programs.

Prizes

National

CSIRO Eureka Prize for Leadership in Science

Professor Martin Green, ARC Photovoltaics Centre of Excellence

Land & Water Australia Professor Peter Cullen Eureka Prize for Water Research and Innovation

Jointly awarded – Associate Professor Greg Leslie, School of Chemical Sciences & Engineering (UNSW) with Professor Bruce Sutton (USyd)

NSW Scientist of the Year Awards – Environment, Water and Climate Change Sciences Category

Professor Andy Pitman, Climate Change Research Centre (Inaugural) Future Justice Prize

The Copenhagen Diagnosis

International team led by Professor Matthew England Climate Change Research Centre

International

Eni New Frontiers of Hydrocarbons Prize (Italy)

Jointly awarded – Professor Val Pinczewski, School of Petroleum Engineering (UNSW) with Professor Mark Knackstedt (ANU)

Energy Institute Awards (UK) – Individual Achievement Category

Professor Martin Green, ARC Photovoltaics Centre of Excellence

Energy Institute Awards (UK) – Technology Category

Jointly awarded – Professors Martin Green and Stuart Wenham, ARC Photovoltaics Centre of Excellence (UNSW) with Drs Ji and Zhengrong Shi (Suntech Power Co)

Also, all three of our new ARC Australian Laureate Fellows (premier Fellowship of the Australian Research Council) for 2010 were awarded in this broad area. These are prospective (awarded for research to be undertaken July 2010–June 2015)

ARC Australian Laureate Fellowship

Professor Matthew England, Climate Change Research Centre

Awarded to study: Quantification of the risks that ocean warming will transform Australia's climate, rainfall, and sea level; as well as the ocean's uptake of carbon and the global ocean circulation.

ARC Australian Laureate Fellowship

Professor Chris Turney, School of Biological, Earth & Environmental Sciences (joining UNSW from University of Exeter, UK)

Awarded to study: (Palaeoclimatology) Extending the historical records of change, and understanding the complex linkages between Australian and global atmospheric, terrestrial and marine processes in the climate system.

ARC Australian Laureate Fellowship

Professor Mark Bradford, School of Civil & Environmental Engineering Awarded to study: Development of a "green" sustainable composite steel-concrete building frame system.

Acknowledgements

UNSW Sustainability would like to extend huge thanks to the following people who made the compilation of this report possible:

Dr Jose Bilbao Bernales, Celine Beinchet, Sonja Braidner, Mark Clark, David Chan, David Do, Louise Downe, Greg Fry, Raymond Galway, Stephen Giles, Kuhu Gupta, Timothy Ho, Adam Janssen, Dr Ann Jardine, Nicholas Jones, Denise Knight, Evelyn Kuldan, Emanuel Laermenos, Aaron Magner, Sharangan Maheswaran, Fiona Martin, Dianne Montgomerie, Helen Moustacas, Neil Morris, John Yee Ng, Estely Pruze, Prem Ramburuth, Emily Rhodes, Laura Rigby, Eytan Rocheta, Arifa Sarfraz, Lara Shaw, Dianne Sheedy, Samantha Skinner, Eric Souksai, Dr Patricia Strong, Vernon Tang, Marcus Walsh, Andrea Wechsler, Dr Tracy Wilcox, Prof Veena Sahajwalla.

We'd like to extend special thanks to Ecocreative. Their strategic, design and communications services (and infographics) have greatly enhanced this sustainability report.

Additional thanks must go to commercial partners that helped provide data and supporting information, including Climate Friendly, Complete Office Supplies, Doyle Bros, GoGet, and KeepCup.

UNSW Sustainability, UNSW Sydney NSW 2052 Australia
Telephone +61 2 9385 1038 | Email sustainability@unsw.edu.au
Authorised by Director of UNSW Safety and Sustainability
Provider Code: 00098G ABN: 57 195 873 179